CRYPTOZOOLOGY

VOL. 5 1986

Cryptozoology, 5, 1986, 1–26
© 1986 International Society of Cryptozoology

ANNOTATED CHECKLIST OF APPARENTLY UNKNOWN ANIMALS WITH WHICH CRYPTOZOOLOGY IS CONCERNED

BERNARD HEUVELMANS
Verlhiac, Saint-Chamassy, 24260 Le Bugue, France

ABSTRACT: An annotated checklist of unknown animals of interest to cryptozoology is presented. The checklist is compiled from information in the files of the Center for Cryptozoology, which contain over 20,000 references. Between 110 and at least 138 animal forms are listed. Of these, 40 to 52 are aquatic forms—21 to 24 living in seas and oceans, and 19 to 28 in freshwater bodies—and from 70 to 85 are terrestrial forms. All of the world's zoogeographical regions are represented. It is hoped that future work by other researchers will help improve this first-ever checklist of animals of concern to cryptozoology.

INTRODUCTION

The present checklist has been compiled from the files and library of the author's Center for Cryptozoology, representing over 20,000 references from books, periodical articles, private communications, and personal field-work. A thorough analysis of this mass of information, conducted over a period of more than 35 years, has resulted in a number of hypotheses—some well supported, some not so well—concerning the most probable identity of the sundry animal forms listed. Opinions of other cryptozoologists are also mentioned whenever they seem judicious to the author.

Not all the listed forms necessarily represent new, still undiscovered species or subspecies. Whereas some are so well defined as to deserve a scientific description, others may well be based upon misidentifications, exaggerations, or hoaxes. But all should be carefully investigated to determine whether or not they should continue to be of concern to cryptozoology. Sources are given only when well documented works covering most of the particulars of a certain case are available. Otherwise, the sources are buried in the heterogeneous information material filed systematically in the author's Center. Due to space considerations, they cannot be itemized here.

Except for marine forms, the various animals appearing in this list are classified according to the zoogeographical regions from which they have

TABLE 1.—Breakdown of apparently unknown marine animals with which cryptozoology is concerned, and their most probable position, determined as accurately as possible, within the zoological system (Cl. = Class; O. = Order; So. = Suborder).

Mammalia	O. Carnivora: So. Pinnipedia	2
	O. Cetacea: So. Archeoceti (3); So. Odontoceti (8)	11
	O. Sirenia: Dugongidae	2
	Incertae sedis: O. Sirenia?; O. Primates?	1
Reptilia	*Incertae sedis:* O. Crocodilia: So. Thalattosuchia?; O. Squamata: So. Sauria: Mosasauridae?	1–2
Pisces	*Incertae sedis:* O. Selachii?; O. Anguilliformes?	1–2
Mollusca	Cl. Cephalopoda: O. Decabrachiata (1); O. Octobrachiata (1)	2
Invertebrata	*Incertae sedis:* Cl. Ctenophora?; Cl. Thaliacea?	1–2
Total		21–24

been reported. The freshwater forms have been grouped according to the main climatic zones. Whenever an apparently similar animal is reported from several far-flung geographical regions, it is, in each instance, considered a distinct form, as it probably represents a particular geographical race (subspecies).

Between 110 and *at least* 138 animal forms are listed (the upper figures should always be taken as representing a minimum). Of these, from 40 to 52 are aquatic forms (21 to 24 living in seas and oceans, and 19 to 28 in freshwater bodies), and from 70 to 85 are terrestrial forms. The marine forms (Table 1) seem to comprise 16 mammals (two pinnipeds, three archaic whales, eight toothed whales, one large sea cow and another sirenian, and one mammal of uncertain status—either a sirenian or a primate); one or two reptiles (a sea crocodile or a mosasaur, or both); one or two fishes of uncertain status (sharks? eels?); two mollusks (one squid and one octopus); and one or two other soft-bodied invertebrates. The freshwater forms (Table 2) seem to comprise six to eight mammals (two pinnipeds, one to three sirenians, and three others of uncertain status); nine to 15 reptiles (two possible plesiosaurs, one or two sauropod dinosaurs, six monitor lizards, one possible mosasaur, and one snake); and four or five fishes (one shark, two or three catfishes, and one fish of uncertain status).

The terrestrial forms (Table 3) seem to comprise 57 to 68 mammals (four or five marsupials, one ground sloth, one fruit bat, 24 to 30 primates—lemurs, monkeys, apes, and men—17 to 19 carnivores—bears, dogs, and cats—three to five elephants, one rhinoceros and one zebra, one deer and one antelope, three forms of uncertain status—one being either a monotreme or an otter, another either a sabre-toothed marsupial or a sabre-toothed carnivore, and the last either a hyrax or a rodent); three birds (one gigantic

TABLE 2.—Breakdown of apparently unknown freshwater animals with which cryptozoology is concerned, and their most probable position, determined as accurately as possible, within the zoological system (Cl. = Class; O. = Order; So. = Suborder).

Mammalia	O. Carnivora: So. Pinnipedia	2
	O. Sirenia: Trichechidae or Dugongidae	1–3
	Incertae sedis: So. Pinnipedia?; So. Sirenia?; O. Edentata?	3
Reptilia	O. Sauropterygia: So. Plesiosauria	0–2
	O. Saurischia: So. Sauropodomorphi	1–2
	O. Ornithischia: So. Ornithopoda	0–1
	O. Crocodilia	1–2
	O. Squamata: So. Sauria: Varanidae (6); Mosasauridae (0–1); So. Ophidia: Boidae (1)	7–8
Pisces	O. Selachii (1); O. Siluriformes (2–3); *Incertae sedis* (1)	4–5
Total		19–28

vulture, one small moa, and one flightless rail); eight to 10 reptiles (one ceratopsian dinosaur, one or two lizards and one monitor lizard, and five or six snakes); and, finally, one or two vertebrates of uncertain status (bats? pterosaurs?).

In summary, of all these 110 to 138 apparently unknown animal forms, 79 to 92—almost three-quarters—appear to be mammals. Only three are birds, 18 to 27—close to one-fifth—appear to be reptiles, and only five to seven appear to be fishes. There are, moreover, two to four vertebrates of uncertain status, two definite mollusks, and one or two other invertebrates of more dubious status.

The checklist is for *a priori* reasons far from complete, since the number of large-to-medium-sized animals still to be discovered exceeds the hundred-odd discussed here (Heuvelmans 1983a). It is also incomplete because it is mainly based on the investigations of a single individual; it is hoped that other researchers will, in the future, help improve it by providing well-documented information they may have collected themselves. Finally, it must be considered incomplete because forms based only on vague traditions or rumors, or upon a single sighting, have deliberately been omitted, and because forms of uncertain status—one does not know whether they are on the verge of extinction or already extinct—are not listed either, as they are far too numerous: the Tasmanian thylacine is just one of at least a dozen of such species, and the Eastern U.S. cougar just one out of dozens of such subspecies. The search for these already well-known animals, although sometimes using cryptozoological methods, is in any event more relevant to traditional zoology than to cryptozoology.

This checklist is, of course, neither restrictive nor fixed, and is thus by its very nature provisional. It remains open to change and already differs con-

TABLE 3.—Breakdown of apparently unknown terrestrial animals with which cryptozoology is concerned, and their most probable position, determined as accurately as possible, within the zoological system (Cl. = Class; O. = Order; So. = Suborder).

Mammalia	O. Marsupiala: Macropodidae or Diprodontidae (2–3); Thylacidae (2)	4–5
	O. Edentata: Mylodontidae or Megalonychidae	1
	O. Chiroptera: So. Megachiroptera: Pteropidae	1
	O. Primates: So. Prosimii (1–2); So. Anthropoidea: Cercopithecidae (1); Pongidae (6); *Gigantopithecus* sp. (3); Hominidae (10); *Incertae sedis:* Pongidae?; *Australopithecus* sp.?; Hominidae? (2–6); Cebidae?; Pongidae?; Hominidae? (1–2)	24–30
	O. Carnivora: Ursidae (4–6); Canidae (3); Felidae (10)	17–19
	O. Proboscidea: Mastodontidae (0–1); Elephantidae (3); Dinotheriidae (0–1)	3–5
	O. Perissodactyla: Rhinocerotidae (1); Equidae (1)	2
	O. Artiodactyla: Cervidae (1); Bovidae (1)	2
	Incertae sedis: O. Monotremata?; O. Carnivora: Lutrinae? (1); O. Marsupiala: Thylacosmilidae?; O. Carnivora: Felidae? (1); O. Hyracoidea?; O. Rodentia? (1)	3
Aves	O. Falconiformes: Teratornithidae	1
	O. Apterygiformes: Dinornithidae	1
	O. Gruiformes: Rallidae	1
Reptilia	O. Ornithiscia: So. Ceratopsia	1
	O. Squamata: So. Sauria: Scincidae or Anguidae (1); Varanidae (1); *Incertae sedis* (0–1); So. Ophidia: Boidae (3); Colubridae (1); Viperidae or Crotalidae (1); *Incertae sedis* (0–1)	7–9
Vertebrata	*Incertae sedis:* Cl. Mammalia: O. Chiroptera?; Cl. Reptilia: O. Pterosauria?	2–4
Total		70–85

siderably, thanks to contributions by others, from the brief survey already published by the author (Heuvelmans 1984). In fact, the present checklist is essentially intended to mark the approximate status of cryptozoological research up to 1985. Supplements with emendations will probably be published in the future.

MARINE FORMS

Unknown species of cetaceans for which no specimens have ever been recorded:

- A high-finned sperm-whale, 60 feet in length, said to have been frequently seen about the Shetland Islands in the 17th century. It was observed by Sir Robert Sibbald, the "father of cetology," and described by him in 1692 as *Physeter tursio* (Heuvelmans 1965b: 28, 1968: 37).

- A beaked-whale, 30 feet long, black above and white below, with the flippers white on the upper surface and thus contrasting sharply with the black body. Philip H. Gosse spent no less than twelve hours watching a shoal of such still undescribed whales in the North Atlantic (Heuvelmans 1965b: 28, 1968: 37).
- A whale of rather large size (from 20 to 30 feet long) with an extremely long, erect back fin, almost sabre-shaped. Apparently confined to the Antarctic Ocean, it was mentioned by both Sir James Ross and McCormick, and three of them were sighted in January, 1902, and four more the following month by Edward A. Wilson, who went on Robert Scott's *Discovery* expedition (Heuvelmans 1965b: 28, 1968: 37).
- A kind of killer-whale, entirely sepia brown with white star-shaped scars, which was sighted several times in the eastern Gulf of Aden, north of the village of Alula, by Captain W. F. J. Mörzer Bruyns, who named it provisionally the "Alula whale." It is about 20 feet long and its dorsal fin is at least 2 feet high (Mörzer Bruyns 1971).
- A dolphin with two dorsal fins, both curved backwards, the anterior one set on the forehead like a horn. It was first described by Rafinesque as *Oxypterus mongitori* after Mongitore's observation of it in the Mediterranean. Quoy and Gaimard confirmed the existence of such strangely endowed dolphins when, during the *Uranie* and *Physicienne* expedition, they saw a whole school of them, spotted with black and white, between Sandwich Islands and New South Wales in 1819. They named this species *Delphinus rhinoceros* (Heuvelmans 1965b: 27–28, 1968: 36).
- A Mediterranean dolphin looking very much like the striped dolphin (*Stenella coeruleoalba*), but lacking its peculiar harness pattern. It has been provisionally described as the "Greek dolphin" (*Stenella* sp.) by Mörzer Bruyns, who has seen some on several occasions (Mörzer Bruyns 1971).
- A similar dolphin, differing slightly from the bridled dolphin (*Stenella attenuata*) and observed in great numbers by Mörzer Bruyns along the Senegal coast, which was accordingly described by him as the "Senegal dolphin" (*Stenella* sp.) (Mörzer Bruyns 1971).
- A kind of dolphin very similar in shape and size to the mellon-headed whale (*Peponocephala electra*), but more brightly colored, with a brown back, yellow flanks, and a pink belly. It had been named the "Illigan dolphin" by Mörzer Bruyns, and accurately portrayed by him when he observed it in the Mindanao Sea, off of the Philippines, even before the jet black mellon-headed whale, long thought to be a species of *Lagenorhynchus,* was placed in a genus of its own by M. Nishiwaki and K. S. Norris in 1966 (Mörzer Bruyns 1971).

Merfolk-like animals not necessarily related to the present dugong and manatees—their classical scientific explanation:

- "Mermaids" and "mermen" reported from seas where no recent species

of sirenians are known to have lived during historical times. In the most complete work devoted to the mermaid legend (Benwell and Waugh 1961), 70 sightings of such creatures are listed. Out of these, 52 (almost three-quarters) have alledgedly occurred far from the areas where the three species of manatee, the dugong, and the enormous Steller's sea-cow are known to be or to have been confined: 47 in European waters, three off of Greenland and in the extreme northeast of North America, one in Polynesia, and one in the Arctic Ocean. In these regions, the existence of seals, sea-lions, or walruses, cannot, as has been suggested, make up for the absence of sirenians, since pinnipeds lack the essential—almost indispensable—feature which makes an aquatic animal congruent with the mythical archetype of the mermaid (the devouring mother or the ever-deceiving vamp): the pectoral mammae. Only a still-unrecorded species of recent Sirenia, or possibly—though much less likely—an unknown form of primate adapted to sea-life, could explain the abundance and persistence of merfolk reports in certain seas up to modern times.

- Surviving herds of the largest sirenian, Steller's sea-cow (*Hydrodamalis gigas*), in the Bering Sea. Since such gigantic animals were known in the 18th century all along the Kamchatkan coast, and probably even further north to St. Lawrence Island, and since some seem to have been sighted quite recently off Cape Navarin, the survivors may not belong to the same geographical race, and even not to the same species as those exterminated before 1880 off of the Komandorski Islands. Obviously very specialized and even degenerate, the latter were confined to the shores of these islands because of a highly exclusive diet restricted to particular kinds of sea-weed and sea-kale, and, characteristically enough, they never tried to escape from their persecutors in spite of the abundance of other islands and the vastness of the sea (Heuvelmans 1965b, 1968, Mackal 1980).

- In the northern Pacific, south of the Aleutian Islands, an unidentified merfolk-like animal of much smaller size (5 feet long) observed for over two hours by naturalist Georg Wilhelm Steller in 1741, and described by him as a "sea-ape." It seemed devoid of forelimbs, and had an asymmetrical tail of which the upper fin was longer than the lower one, as is the case in sharks. Could this be the aquatic form of primate alluded to above? Roy P. Mackal suggests that this animal, which sometimes raised itself one-third of its length out of the water (as pinnipeds often do), could be either a northern form of the leopard seal (*Hydrurga leptonyx*), only known at present from the Antarctic Ocean, or a very young specimen of a surviving zeuglodon (*Basilosaurus*). The survival of this fossil archeocete would moreover account for native traditions of a large long-necked sea "monster" called *tizheruk* on King Island and *pal rai yuk* on Nunivak Island (Mackal 1980). The front flippers of both animals could have been held so closely pressed to the body

as to pass unnoticed in Steller's specimen. But none of these hypotheses can explain the disturbing shark-like tail of the "sea-ape."

Huge, mostly elongated marine animals traditionally referred to as "sea serpents," but of obviously different shape, habits, and geographical distribution (some are world-ranging and some confined to restricted areas). They may represent either supposedly extinct forms, such as primitive cetaceans or ancient sea-faring crocodiles or lizards, or quite original forms of very specialized pinnipeds and fishes—or even invertebrates.

A careful statistical analysis of almost 600 sightings of these "sea serpents" reported between 1639 and 1965 enabled the author (Heuvelmans 1965b: 644–650, 1968: 565–569) to describe five well-defined new species, and to distinguish two further, less well-defined forms, one at least certainly heterogeneous:

- *Hyperhydra egedei,* or "Egede's super-otter," known to the Scandinavians as *soe-orm* ("sea-worm"), an extremely primitive pre-zeuglodon archeocete, confined to the icy Arctic Ocean, which probably became extinct during the last century.

- *Plurigibbosus novaeangliae,* or "the many-humped of New England," i.e., the famous "American sea-serpent," actually distributed throughout the cold temperate regions of the North Atlantic. Having recent cetaceans' features, such as a dorsal fin and a bilobate tail, it seems to be a more specialized form of archeocete, closely related to the fossil zeuglodon (*Basilosaurus*).

- *Cetioscolopendra aeliani,* or "Aelian's cetacean centipede," another archeocete, strangely provided with many lateral fins and with a segmented, jointed armour of bony dermal plaques which were common among archaic whales. It is found only in the belt of tropical and subtropical waters around the world, and is known to the Malagasies as *tompondrano* ("lord-of-the-sea"), and to the Vietnamese as *con rit* ("millipede").

- *Megalotaria longicollis,* or "the big sea-lion with a long neck," the most common "sea serpent," a gigantic cosmopolitan pinniped which can occasionally crawl on land. Living normally near the surface, it often enters fjord-like sea-arms, where some of its populations seem to have been imprisoned during glacial times, when a lowering of ocean levels resulted in such fjords becoming landlocked and transformed into steep-shored lakes (see below, *In Cold Temperate Lakes and Rivers*).

- *Halshippus olaimagni,* or "the sea-horse of Olaus Magnus," another cosmopolitan pinniped, with a long floating mane and well-developed whiskers, but also with enormous eyes, apparently adapted to very dim light and thus to semi-abyssal depths, in contrast with the preceding species; it thus cannot be the male form of the former.

- A marine saurian; that is, a huge ocean-dwelling reptile shaped like a crocodile or a lizard. It could be either one of the thalattosuchian crocodiles

of the Mesozoic Era, which had a fish-tail and the hind-legs transformed into flippers, or a surviving mosasaurian, an outsized sea cousin of the monitor lizards. It is even possible that both of these survive separately in tropical waters.

• Super-eels; actually a host of large eel-like fishes adapted to abyssal depths and only seen on the surface in exceptional circumstances, apparently writhing in their death-throes. These include big snake-like sharks, perhaps related to *Chlamydoselachus anguineus,* the present frilled shark, which does not exceed 6 feet in length.

• To Heuvelmans' seven vertebrate types of "sea serpents" some very elongated invertebrates ought to be added, because, as has been postulated by Roy P. Mackal, such are needed to account for some particularly problematical cases. For instance, colonies of salp-like tunicates (Pyrosomida or Salpida) or ctenophores (comb jellies) of the Venus' girdle type, of unrecorded length or belonging to unknown species (Mackal 1980).

Gigantic cephalopods by far exceeding the dimensions of the largest recorded specimens:

• Giant squids more than 100 and even 200 feet long overall (the largest measured specimens of *Architeuthis* are only about 50 feet long). Claims for much larger creatures have been conjectured from the size of scars left by the toothed suckers of large squid on the skin of sperm-whales, and from the length and thickness of the arms of squids found in the bellies of—or vomited up by—these carnivorous whales, the ratio between the dimensions of the greatest suckers and the body-length, and the ratio between the dimensions of the sessile arms and this same length being approximately constant in *Architeuthis.* Of course, quite differently proportioned squids of unknown genera could be responsible for both outsized sucker marks and the cession of relatively enormous arms, but this would be even more unlikely than the existence of individual specimens of *Architeuthis* of much bigger size, or of a larger unknown species of this genus (Heuvelmans 1958b, 1968).

• Huge octopuses spanning 60 feet or more, in the western Atlantic, especially off of the Bahamas, where they are known as *lusca* to the Andros Island fishermen. They have been described as *Octopus giganteus* by A. E. Verrill based on a report and a few photographs of a mutilated and decomposed specimen stranded on a Florida beach (Verrill 1897a, 1897b). This description was almost immediately repudiated by Verrill himself, who came to the conclusion that the specimen was just a mass of whale blubber (Verrill 1897c). However, a more recent histological analysis of some of the preserved tissue revealed that it could not have come from a mammal, had indeed come from a cephalopod, and, furthermore, one less closely related to squids than to octopuses (Wood and Gennaro 1971). The full, intricate story of all this was painstakingly reconstructed some years ago (Mangiacopra 1975, 1976, Mackal 1980).[1] After his first examination of the photographic evidence, Verrill had sensibly suggested that what he then took for a gigantic octopus might be related to *Cirroteuthis* because two stumps of the stranded mass looked like the remains of the lateral fins which characterize this swimming octopus. This was rather unlikely at the time, since all cirrate—that is, ciliated octopuses—then known were of very small size. However, as an octopus of this family, more than 8 feet in length, was filmed at a depth of 8,500 feet over the hydrothermal springs of the eastern Pacific by the French scientific research submarine *Cyana* in 1984, this hypothesis gains new support.

According to Michel Raynal, because the cirri fringing the row of suckers in Cirromorpha look very much like hairs, it could even account for the name "him of the hairy hands" sometimes given to the *lusca* of Andros Island. Raynal thus proposes to change the generic name associated with the Florida type-specimen from *Octopus* to *Otoctopus,* "the eared octopus," this name alluding to the lateral fins actually resembling projecting ears. The scientific name of the gigantic, seemingly semi-abyssal cephalopod would by this process become *Otoctopus giganteus* (Raynal 1986).

Freshwater Forms

(1) In Cold Temperate Lakes and Rivers

Like all animals, marine ones excepted, freshwater forms should be classified according to the zoogeographic regions they inhabit. However, the alternate method of grouping them according to the main zones of temperature, as done here, has the advantage of emphasizing the peculiar uniformity of those reported from cold temperate climates in both hemispheres:

• So called "lake monsters," generally described as the long-necked type of "sea serpent" capable of crawling on land (*Megalotaria longicollis*), in Loch Ness and several other Scottish locks, but also throughout the northern regions in the lakes of Wales, Ireland, Iceland, Norway, Denmark, Sweden, Finland, the Soviet Union, Japan, Canada and the U.S.A. (Costello 1974, Mackal 1980, Bord and Bord 1980). Incidentally, the Loch Ness animals have been described as *Nessiteras rhombopteryx* on the basis of an underwater photograph of a diamond-shaped fin (Scott and Rines 1975). This generic name is long antedated by *Megalotaria* (Heuvelmans 1965b), but the specific name may well be retained as valid, even as just subspecific, since it is very likely that the diverse landlocked, freshwater forms differ at least slightly from the ocean-dwelling one.

• "Lake monsters" similarly described, in Argentinean (*iemisch*?), south

---

[1] See Mackal's Research Report elsewhere in this issue for further biochemical results—Editor.

Australian (*bunyip*) and Tasmanian lakes (Heuvelmans 1955, 1958a, Mackal 1980), but also in the Orange River and in the tributaries of the Vaal River (*groot slang*) in South Africa (Heuvelmans 1978).

Attention must be drawn to the fact that all these long-necked animals have been reported from stretches of freshwater located around isothermic lines 10°C; that is, between 0°C and 20°C (i.e., 50°F, between 32°F and 67°F) in both Northern and Southern hemispheres. One could hardly wish for better circumstantial evidence of their existence.

(2) In Tropical Lakes, Rivers, and Swamps

As will be obvious below, the freshwater "monsters" from warmer climates do not have much in common. If they are grouped here together, it is to place emphasis on their extreme diversity, in contrast with the unknown freshwater forms from cold climates. For clarity's sake, they have nevertheless been grouped here by continent, so as to be easily inserted hereafter into the sections of their proper zoogeographical region. Since many of these animals are actually amphibious, some could likewise have been listed with the terrestrial forms.

In Asia (Oriental Region):

- Amphibious animals, probably huge monitor lizards, some up to 20 feet in length—and thus larger than the Komodo dragon (*Varanus komodoensis*)—currently reported from India and neighboring countries. In the Gir area (Kathiawar Peninsula), where they are known as *jhoor,* they are largely mythicized, but they have been fairly well observed in the Sundarbans (mouths of the Ganges), where, strangely enough, they live in symbiosis with the salt-water crocodile (*Crocodylus porosus*). In Assam, where they are known as *buru* to the Apa Tanis, they seem to have been exterminated in modern times (Izzard 1951, Mackal 1980). In Bhutan, however, some have recently been sighted in one of the northern lakes, once by the King himself, and they have also been reported from Burma. There is even a historical record extant of their existence in Sumatra during the 16th century (Heuvelmans 1965a).
- A dinosaur-like animal resembling a sauropod, or possibly a plesiosaur-like animal, seen in two lakes of Pahang, in the Malaysian Peninsula: the Tasek Bera and the Tasek Chini.
- A similarly-described reptile in Lake Patenggang, in western Java.

In Africa (Ethiopian Region):

- Unknown species of sirenians, differing probably from both the manatee of West Africa and the Red Sea dugong, reported from Lake Tana, in Ethiopia (*auli, aila, ia-bahr-tedcha*), from Lake Chad, and even Lake Yoan, one of the Ounianga swamps, both in Chad (Heuvelmans 1978).
- Large, long-necked, amphibious animals, capable of walking on land and said to be vegetarian, thus resembling sauropod dinosaurs, in Gabon (*n'yamala*), the Congo (*mokélé-mbêmbé*), and the Central African Republic (*diba, songo, badigui, ngakula-ngu, guaneru*) (Heuvelmans 1978, Mackal 1980, 1986).
- Aquatic animals described as gigantic snakes in the Upper Nile swamps (*lau, jâk-anywong*) and in Lake Victoria (*lukwata*). They probably belong to undescribed species of very large catfishes (Heuvelmans 1978).

In Central and South America (Neotropical Region):

- A 12-foot long aquatic animal resembling either a seal or a manatee, near the islands of Titicaca and Tiquina, and near the peninsulas of Copacavana and Tiquina, in Lake Titicaca, Peru (Bandelier 1910).
- Large amphibious reptiles, usually said to be dinosaur-like (but resembling more ornithopods—that is, iguanodons or duckbills—than sauropods), or, more rarely, plesiosaur-like, in a vast area of the northwest of the continent stretching over Peru, Ecuador, Colombia, Venezuela, and the Brazilian State of Amazonas.
- Giant anacondas up to 60 feet long (*Sucuriju gigante*)—and thus possibly belonging to a species distinct from *Eunectes murinus*—in the Amazon basin (Heuvelmans 1955, 1958a).
- An even larger freshwater "sea serpent" known as *minhocão* ("giant earthworm"), in the Upper Paraguay, Upper Parana and Uruguay Rivers. It is presumably an amphibious burrowing mammal (Heuvelmans 1955, 1958a).
- A "scaly serpent," 25 to 30 feet long, known as *huilla,* in the East Coast River, Trinidad. It is said to rise and fall "in arches," which is impossible for a snake, and usually indicates a mammalian origin.
- A gigantic "fish" given to capsizing canoes in Lake Origuere, in the Mojos Indian territory, Bolivia (Métraux 1947).
- A mysterious beast of the Paraguayan Chaco, described as "a slug-like snake," but as broad as a horse and having the head of a dog and a poisonous barbed spike in its stumpy tail. It is most probably what some of the local Indians call *manguruyú* or giant catfish, an 18-foot-long fish said to grow up to half a ton in weight (Craig 1954).

In Australasia (Australasian Region):

- Gigantic monitor lizards, up to 30 feet in length, known to some Aborigines as *mungoon-galli,* in various places of eastern Australia, particularly in the forests of northern Queensland, but also further south (see Terrestrial Forms, *In Australasia [Australasian Region]*). They could be relic individuals of *Varanus priscus* from the Upper Pleistocene of Australia.
- Similar amphibious monitor lizards, almost as large, and called *au angi-angi* by the Papuans of eastern New Guinea (Heuvelmans 1965a).
- An unknown species of crocodile (or is it, as has been suggested, a surviving mosasaur?) known as *migo,* in Lake Dakataua, on the island of New Britain, in the Bismarck Archipelago (Neill 1956).

• Another still-undescribed species of crocodile suspected to inhabit the ancient lakes of Celebes (Schmidt 1935, Hooijer 1954).

• A wrongfully disputed freshwater shark (*Carcharhinus* sp.) in Lake Sentani, 20 miles inland from the north coast of New Guinea. During World War II, American anthropologist George Agogino actually saw one brought to the surface (stunned or dead) after he had dropped a hand bomb into the lake from a dugout to get a supply of fresh fish for his army unit. The shark soon began to sink, but he had enough time to make a quick drawing of it and to ascertain that it was over 12 feet in length.

Terrestrial Forms

(1) In Europe (Palearctic Region)

• Wild hairy men, most probably Neanderthals having survived into historical times. Known as *satyrs* in classical antiquity—a name borrowed from the Hebrew *se'ir* ("the hairy one")—and as *wudewása* ("wood being") in the Middle Ages, they were reported until the 13th century in Ireland, until the 16th century in Saxony and Norway, until the 18th century on the Swedish island of Öland and in Estonia, in the Pyrénées (*iretges, basajaun*) up to 1774 at least, and in the Carpathians ("wild man" of Kronstadt) up to 1784 at least.

• Wolf-like predators, killing domestic animals and sometimes human beings, periodically reported from various places in France, Switzerland, or Italy. The most famous one is "the Beast of Gévaudan," said to be responsible for the deaths of a hundred people between 1765 and 1767 in the Lozère (France). Wolves are usually blamed for these massacres, despite the fact that they do not normally attack humans unless they have rabies. Furthermore, the way the victims were dispatched does not usually correspond with their normal method of killing. Such "beasts" usually turn out to be feral dogs, although wolf-dog hybrids could be the culprits in certain cases. It is also possible that human sadists of the "serial killer" type took advantage of the local "beasts"' deeds to commit gruesome crimes with impunity. This is without the slightest doubt what happened in the Gévaudan area in the 18th century (Ménatory 1976).

• When similar obnoxious "beasts" of prey are reported from Great Britain, where they have been recorded all over the country, from Devon to Kent and from Sussex to Caithness, they are almost always described as catlike and said to resemble lynxes, American pumas, and even African lions. They are only referred to as dogs when they are black and definitely ghostlike (Bord and Bord 1980). Here also, large feral dogs could explain the tracks which are found, and they are generally to be blamed for the depredations, much more frequently, at least, than wild cats, although the latter still exist in Scotland (*Felis silvestris grampia*). One researcher has been bold

enough to suggest that there could be an unknown form of cat in the British Isles (Francis 1983). This, of course, is quite unacceptable to most zoologists, but it should be remembered that lynxes survived until recent times in Britain, and may even have lingered into the present. After all, cats are most elusive creatures, as will be seen below.

• A big wild cat on the Mediterranean Ile du Levant, one of the Iles d'Hyères, off the coast of the Var, France. In 1932, an individual which used to dwell at a certain spot looked so large to the numerous inhabitants who sighted it that it was dubbed *le lynx de la Paille.* During World War II, several of these cats were caught in rabbit jaw-traps set by poachers: some of the cats were reported to the author to weigh more than 22 lb (10 kilos), and even up to 33 lb (15 kilos)—which was probably an exaggeration. In 1958, one was observed several times by the author himself, who saw it savagely attacking feral cats. This still-undescribed insular cat probably belongs to a particular race, like the Corsican wild cat (*Felis reyi*), only known by three specimens, the still mysterious Sardinian wild cat (*Felis sarda*), and the Cretan wild cat (*Felis agrius*), which is in danger of extinction through genetic "dilution," since it often interbreeds with feral cats. It must be stressed that the various cat races of the Mediterranean islands, first thought to be subspecies of the European wild cat (*Felis silvestris*), are now considered subspecies of the African wild cat (*Felis libyca*). It still remains to be established whether the wild cat of the Ile du Levant, lying much nearer to the mainland—a race which could be described as *levantina* (subsp. nov.)—is to be classified similarly or not.

• A stumpy reptile or amphibian, about 3 feet long, looking like a skink or a glass-snake (*tatzelwurm, stollwurm*) in the Swiss, Bavarian, and Austrian Alps. It could be closely related to the scheltopusik (*Ophisaurus apodus*), the largest of all glass-snakes, with a length of almost 4 feet, which is found not only in southwestern Asia, but also in southeastern Europe (Heuvelmans 1955, 1958a).

• Large snakes, from 9 to 13 feet long, currently reported from the Mediterranean provinces of France, northern Italy and Greece, but also sometimes from inland provinces such as the Hautes-Alpes or the Vienne, in France. The most likely explanation is either that they are stray individuals of the Montpellier snake (*Malpolon monspessulana*), which can exceptionally reach 9 feet in length, or that the geographical distribution of this alledgedly coastal species, and of its Balkan relative, is more extended than generally believed.

(2) In Cold Temperate Asia (Palearctic Region)

• Neanderthal-like men, generally known locally as "wild men," "hairy men" or "bear-men," reported alive from most of the mountain ranges of Palearctic Asia: in the U.S.S.R., from the Caucasus Mountains (*kaptar,*

tkhiskatsy, achokochi, abnauayu, lakshir, agash-kishi, ingushei, almasty) and the Pamir Mountains (*yavan-adam, golub-yavan, jez-tyrmak, khaivan-akvan*) through the Altay and Sayan Mountains (*almast, albasty*) up to the Verkhoyansk Range and the Chukotka Peninsula (*chuchuna, kuchuna, moolena, kéédieki, abas*); in Iran (*dev, nasnas, ghool-biaban, meshae-adam, veshshi-adam, tukhli-adam, kara-pishik*); in Afghanistan (*yavoi-adam, yavo-khalg, yabalik-adam*); in China, from the Karakoram foothills (*adam-yapayisy*), the Tien Shan Range (*adam-ayu, kiik-adam*) and Dzungaria (*ksygyik*) westward to the Sennongyia Mountains and the Quinling Range in the center of the country (*ye-ren, mao-ren, ren-xiong*) and southward to northern Tibet (*mi-gö*) and the southern provinces (*fei-fei*); and, finally, in Mongolia (*almas, khün-görüessü*).

These wild hairy men have also spread through the valleys of the Irrawaddy, Salween, and Melong Rivers into the tropical southeast of the continent (see below, *In Tropical Asia [Oriental Region]*), over Burma and Thailand into Laos, Cambodia and Vietnam, more exceptionally into southern Malaysia (*b'lian*) (Porshnev 1963). The type-specimen of this form (*Homo pongoides* or *Homo neanderthalensis pongoides*) was actually shot in Vietnam in the mid-1960's and then smuggled into the U.S.A., where it was exhibited deep-frozen for a number of years (Heuvelmans 1969, Heuvelmans and Porchnev 1974).

- Gigantic hairy hominoids (most probably *Gigantopithecus* sp.) in southern Tibet (*nyalmo, mi-chen-po*), Sikkim and northern Bangladesh, from where, like the Neanderthal-like men, they spread into the Oriental Region, namely Burma (*tok, kung-lu*), China up to Manchuria (*xiao, da-mao-ren*), and North Vietnam (*shan-tu*).

- A white bear from the Shennongjia mountain forests, in the Hubei Province of central China. Known for centuries to the Chinese as *bai-xiong* (white bear), it was confused with the giant panda when the latter was discovered, although this piebald bear-like animal would certainly have been named "black and white bear." Since 1963, four specimens have been captured, which can be seen in the Wuhan and Beijing Zoos. It has been stated that these bears, smaller than the polar bear, are not albino freaks of the local black bear, but belong to a distinct form resulting from a long evolutionary process.

- Mammoths (*Elephas primigenius*) alledgedly surviving in Siberia's taiga, an endless evergreen forest of pine and birch. The age-old rumors claiming their survival seem to be based mainly upon specimens frozen from between 9,000 end 13,000 years B.P., complete with muscles, skin, and hair. These impressive carcasses have occasionally been seen "emerging" from blocks of melting peat by terrified natives. There is only one detailed report of an actual encounter with a live animal: an elderly hunter born in the Usuri region told a French consul in 1918 that, two years before, he had sighted a huge elephant with very curved tusks and fairly long hair after having followed its enormous tracks in the woods for several days. Although perfectly matter-of-fact and ingenuous, this story is so vaguely and even absurdly located that it is considered far from reliable (Heuvelmans 1958a).

- A short and stocky snake, between 2 and 3 feet in length, said to inhabit the mountains of the larger islands of Japan (Honshu, Shikoku, and Kyushu), and Korea on the Asiatic mainland. With a very wide head, separated by a constricted neck from an even wider body ending in a short tail, it looks very much like an African puff adder (*Bitis*). Although still unrecorded by science, it has been reported since the 13th century, and has been given no less than forty different names, the most common being *tzuchinoko,* which alludes to its shape reminiscent of a straw bat (*tzuchi*). It is said to have extremely large eyes with eye-lids (possibly protruding scales), two facial pits between the eyes and the nostrils, erect horns (probably scaly horns), two crests along the spine (a double line of markings?), and very large scales all over the body. On the upper parts, the color is a mixture of iridescent grey and dark brown, marked with large black spots, and it is bright orange on the belly. The tail is said to be a prehensile. The so-called straw bat snake can move by both the usual lateral undulations of most snakes and the rectilinear forward progression of some heavy-bodied vipers. Being able to curl itself up into a ball, or a "balloon tire," it alledgedly rolls down hills in a similar way as that attributed to the legendary "hoop-snake" of North American folklore. It is also credited with prodigious leaps, and is a good swimmer. Finally, it is reputed to be aggressive and highly venomous (Yamamoto 1973, 1985).

Owning to the overwhelming amount of anatomical and behavioral traits it shares with both true vipers and pit vipers, the *tzuchinoko* should be classified within either the Viperidae or Crotalidae. Because of its facial pits, and the fact that the only vipers known from Japan are representatives of two genera of Crotalidae, *Agkistrodon* and *Trimeresurus*—the latter being confined to the smaller islands—it presumably belongs to the same family, and could thus represent a new species within the genus *Agkistrodon* (Dethier and Dethier-Sakamoto 1986). However, since it shows an unprecedented combination of traits from both true vipers and pit vipers almost equally, it may well constitute a distinct new genus.

(3) In North Africa (Palearctic Region)

- A large wolf-like animal, differing from both jackals and foxes, in the Sahara Desert. The Tuareg are said to call the male *adjulé* and the female *tarhsît*. It is obviously the same animal, which is also known as *kelb-el-khela* (bushdog) in Mauritania. It is currently referred to as a still-unknown animal,

although it was clearly established by Theodore Monod as early as 1928 that it is the African hunting dog (*Lycaon pictus*), which thus appears not to be strictly confined to savanna and bush and to the tropics (Monod 1928).

• Small-sized bears said to be common in the mountains of the Rif, near Kétama, in Morocco. Such a dwarfish bear (*Ursus arctos faidherbianus*) has been described from the Upper Pleistocene of North Africa, and it seems to have survived into historical times, its remains having been found associated with human artifacts dating to the Christian Era. It is most probably a surviving individual of this form, killed at the foot of the Tetuan mountains, also in northern Morocco, which was described in 1844 by Schinz as *Ursus crowtheri*; an effort was made to preserve its skin, but unfortunately in vain (Heuvelmans 1982). Strikingly enough, it is precisely from the same area that living bears are now reported. It must be kept in mind, however, that this could be the result of a confusion between bear and hyaena, the former's Arabic name being *dubb,* whereas the latter's Arabic name is *dubbah.*

• Very large snakes reported from eastern Morocco to Tunisia, and often said to be long-haired (crested, or, much more likely, seen shedding their skins). They could be pythons surviving—just as crocodiles have—in scraps of tropical vegetation remaining north of the Sahara Desert, and occasionally straying from them (Heuvelmans 1978).

(4) In Tropical Asia (Oriental Region)

• Giant bats, said to be the size of a small child, reported from Vietnam, Java (*aul*), and the Philippines.

• Neanderthal-like men in the southeast of the continent, including the Malay Peninsula (see above, *In Cold Temperate Asia [Palearctic Region]*).

• Gigantic hairy hominoids (*Gigantopithecus*?) in Burma, southern China, and North Vietnam (see above, *In Cold Temperate Asia [Palearctic Region]*).

• Anthropoid apes (probably mainland orang-utans surviving from the Pleistocene, or just traditions about them), in Assam (*olo-banda, bir sindic*), Burma (*iu-wun*), southern China (*xing-xing*) and Vietnam (*kra-dhan, con lu'o'i u'o'i, bêc'-boc*).

• A youth-sized ape with a conical head, reported since classical antiquity ("Pan with wedge-shaped head") and now sensationalized as the Abominable Snowman, in northern India and the Himalayas, from Kashmir (*vana-manusha*) to Bhutan (*jungli admi*), through Nepal (*yeh-teh* or *yeti, mi-teh*), Sikkim (*shukpa*) and Bangladesh (*ban-manush*). It has long been confused with both the Neanderthal-like men and the *Gigantopithecus*-like hominoids mentioned above, but it is obviously a true ape, running on all fours when hurried (Izzard 1955). It is probably a remnant of the rich fossil pongid fauna of the Siwaliks, which includes *Sivapithecus.* It has been described as *Dinanthropoides nivalis* (Heuvelmans 1958). While it is quite possible that the fossil anthropoid apes referred to above are more closely related to this form than to the orang-utan, it is equally possible that the so-called Snowman is merely a particular form of orang-utan, more terrestrial than the tree-dwelling kind.

• Small hairy hominoids, with long, straight hair on the head, exterminated at the end of the 18th century in Sri Lanka (*nittaewo*), but seemingly still alive in Sumatra (*sedapa, orang pendek*) and Borneo (*batūtūt*). According to primatologist W. C. Osman Hill, these dwarfs could be modern representatives of *Homo erectus* (Hill 1945).

• Large, blue tigers persistently reported since the early 1920's from Fukien (now Fujian) Province, in southeastern China. One of them, described as having "a deep shade of maltese, changing into almost deep blue on the underparts" between the regular black stripes, was even observed by a well-known missionary and big-game hunter, Harry R. Caldwell. He personally thought it was a freakish mutation related to melanism; but even the existence of melanistic (black) tigers is based on testimonial evidence only.

• Pythons of unusual size (up to 40 feet long), and thus belonging possibly to a species distinct from the well-known ones, said to have been observed in India, Bangladesh, and Thailand.

(5) In Tropical and Southern Africa (Ethiopian Region)

• Still unknown lemurs (*tsongomby, habeby, kalonoro,* etc.), most of them probably becoming extinct in recent times; some, however, still suspected to exist by unidentifiable calls heard in Madagascar.

• Rare remnants of a vanishing race of pygmies (*kimos*), or recent traditions about them, in Madagascar.

• Controversial species of anthropoid apes, such as the chimpanzee of inner Gabon and southern Cameroons (*kooloo-kamba, dédiéka, koola-nguia, ebôt*); the chimpanzee of Malawi (*fireti, ufiti*); and the pygmy gorilla of the Rembo Nkomi delta, on the coast of Gabon (Heuvelmans 1980).[2]

• Hairy or long-haired hominoids of very small size, sometimes largely mythicized, considered remnants of ancestral races or species of men, in West Africa (*sansandryi, wokolo, kudeni, fating'ho, egbéré, temu, kenkob, betsan, mohin-goohé, séhité, mmoatia, abonesi, aziza, ijiméré*), in Central Africa (*kakundakari, amajungi, niaka-ambuguza,* etc.), in East Africa (*doko, cincallé, mau, mberikimo, agogwe, wa-mbilikimo, watu wa miti*), and in Southern Africa (*chimanimani, tokoleshe,* etc.). These could be either proto-

[2] Since this article was submitted for publication, the existence of the pygmy gorilla has been denied by Colin P. Groves in *Cryptozoology* (Vol. 4: 37–44, 1985). According to Heuvelmans, however, this refutation is based upon still controversial evidence, and the case should be considered as still unresolved—Editor.

pygmies, proto-bushmen, or australopithecines of the gracile kind (*Australopithecus africanus*) (Heuvelmans 1980).

• Large hominoids of equally ambiguous identity in Sudan (*amanit, woaddel-uma, wa'ab*), Zaire (*bangenza, lisisingo, mulahu, kikomba, apamandi, zaluzugu*), Kenya (*gerit, nanauner, ngoloko, ntyii*), and Cameroons (*ngend*). These could be either unknown species of apes, ape-men (*Homo erectus*), or australopithecines of the robust kind (*Australopithecus robustus*) (Heuvelmans 1980).

• An alledged bear of unparalleled ferocity in East Africa (*chemisit, ketit, shivuverre, koddoelo,* Nandi Bear). Reports are often based upon sightings of very large black ratels or honey-badgers (*Mellivora capensis*), and upon the savage deeds of spotted hyaenas of unusual color or size, but probably also, originally, upon encounters with gigantic baboons supposedly extinct (*Theropithecus* [*Simopithecus*] sp.) (Heuvelmans 1982).

• Anomalous felines, such as black, red, or white lions, green leopards, and striped cheetahs, reported from many African countries (Heuvelmans 1983b). Most are just individual mutations, but since some are becoming more and more numerous in certain areas, and in unusual habitats, these could be considered new subspecies or even new species in the making. The best documented of these cases is that of the king cheetah, described as a separate species (*Acinonyx rex*) in 1927, but now recognized as merely an anomalous variant of the common cheetah (*Acinonyx jubatus*), but adorned with sumptuous stripes and blotches, and also more nocturnal and forest-dwelling (Bottriell 1985).

• Spotted lions, taken for crosses between lion and leopard, in mountain forests of Cameroons (*bung bung*), the Central African Republic (*bakanga*), Uganda (*enturargo*), Rwanda (*ikimizi*), Kenya (*marozi*), and Ethiopia (*abasambo*). Here, too, this particular form, always linked with a habitat somewhat abnormal for lions, can be considered a newly emerging subspecies, which has been named by the author *Panthera leo maculatus* (Heuvelmans 1955, Vol. 2: 165, 1958a: 371–372).

• Gigantic tabby cats (*mngwa, nunda*) sometimes reported from the Tanzanian coast. They could belong to a giant subspecies of the golden cat (*Profelis aurata*) (Heuvelmans 1983b).

• Large-sized sabre-toothed cats belonging to two different forms distinguished by their habitat, one being partly aquatic and the other inhabiting mountainous terrain. The water-dwelling kind is possibly known as *n'yamalé* to the Orungu of Gabon and certainly known as *coje ya menia* ("water lion") to the Mbunda of Angola; as *ntambue ya mai, ntambo wa luy* and *simba ya mai* (always meaning "water lion"), depending on the region in southern Zaire; more vaguely as chipekwé ("monster") in the Lake Bangweulu area, Zambia; as *dingonek* to the Wa-Ndorobo, as *ol-umaina*(?) or *ol-maima* to the Maasai, and *ndamathia* to the Kikuyu, in Kenya; perhaps also as *nyokodoing* in the swamps of the Upper Nile, Sudan; and, finally, in the Central African Republic, as *muru-ngu* ("water leopard") to the Banda; *ze-ti-ngu* (also "water leopard") to the Sangho; *mamaimé* ("water lion") or *ngoroli* ("water elephant") to the Zandé; and *dilali* ("water lion") to the Baya.

The mountain-dwelling kind is known as *vassoko* or *gassingrâm*(?) in unidentified languages of the Central African Republic; as *coq-ninji* or *coq-djingé* to the Youlou of the same country (a name freely translated as *tigre de montagne*—that is, "mountain tiger"—by the French-speaking people); as *hadjel* to the Hadjeray of the southwest of the Ouadaï district, Chad; and known also under still indefinite names to the Zagoua of the Ennedi and the Toubou of the Tibesti, more to the north of that country (Heuvelmans 1983b).

• Still controversial pygmy elephants—often said to be partly aquatic—throughout Equatorial Africa, where they are always given locally a specific vernacular name, such as *mussaga* in Gabon or *essala* and *bakiri* in the Central African Republic. One, known in Cameroons as *messala,* was described scientifically in 1906 under the name *Elephas pumilio.* Another, quite similar, animal, known around Lake Leopold II in western Zaire as *wakawaka,* was described later, in 1914, under the name *Elephas fransseni.* All these dwarfish elephants possibly represent a third subspecies of African elephant—now called *Loxodonta africana*—which should thus be named *L. a. pumilio,* smaller than the forest elephant (*L. a. cyclotis*), which in turn is smaller than the savanna (bush) elephant (*L. a. africana*). The pygmy race is said to dwell only in dense and dark rain forest and even in swampy areas, which would explain its stuntedness. It has also been suggested that some reports of decidedly aquatic elephants, distinctly different from the regular ones, could well have been based upon relict dinotheriums, of which a certain species (*Dinotherium hopwoodi*) survived at least until the Upper Pleistocene in East Africa (Heuvelmans 1955, 1958a).

• A pygmy forest rhinoceros, possibly more aquatic than the ordinary savanna-dwelling ones, in Liberia, eastern Cameroons, and Gabon, and also around the middle Congo River (Heuvelmans 1955, 1958a). Because it is described as decidedly aquatic, one-horned, elephant-sized, and with a heavy tail in the Likouala region of the northern Congo, where it is called *emela-ntouka* ("killer of elephants"), Roy P. Mackal suggests, but with the greatest reservations, that a surviving ceratopsian dinosaur, such as *Monoclonius,* could be involved (Mackal 1986).

• Surviving specimens of the quagga (*Equus quagga*), thought to be extinct since 1875, reported from Namibia (South West Africa). As the local, almost waterless deserts do not resemble at all the normal habitat of the quagga, which was an inhabitant of the veld (that is, the savanna), the quagga-like

zebras involved are probably freak individuals of Burchell's zebra (*E. burchelli*), less distinctly striped because of cases of incomplete albinism.

- An unidentified small-sized animal, resembling a hyrax or a marmot, seen in southern Ethiopia and well known to the natives.
- A deer, apparently known since Egyptian antiquity, recently reported also from southern Ethiopia. It most probably belongs to the genus *Climatoceras,* of which fossil remains have been collected locally and which date from the Miocene.
- A small, entirely spotted bushbuck antelope, known only from an incomplete skin (preserved in the Zoological Museum of Berlin University) from Liberia (Pathé 1940).
- Flying lizard-like animals reminiscent of the pterosaurs of the Mesozoic Era, in Zimbabwe and Zambia (*kongamato*), around Mounts Kenya and Meru in East Africa, in the Kasai Province of Zaire, in Cameroons (*olitiau,* an obvious misunderstanding for *ole ntya,* "the forked-one," i.e., the Christian devil), and in Ghana (*sasabonsam*). Some of these could actually be unknown species of giant bats, or even the strange-looking hammer-headed bat (*Hypsignathus monstrosus*) (Heuvelmans 1978).
- Pythons of unusual size (up to 40 feet long) in Central Africa, namely in Zaire, where they are given the special name of *pumina* (Heuvelmans 1978).
- Rather large snakes, said to be crested and often to have a cry like the crow of a rooster, reported throughout tropical Africa. They are known as *n'gôk-wiki* to the Baya of the Central African Republic (Heuvelmans 1978). Described as truly gigantic in the Mataba River area, in the northern Congo, where they are known as *nguma-monene* (great snake), similar reptiles with a serrated ridge running along the spine could, according to Roy P. Mackal, be outsized monitor lizards, or even more primitive snake-like lizards (Mackal 1986).

(6) In North America (Nearctic Region)

- Gigantic, hairy hominoids, leaving huge human-like footprints, some showing distinct dermatoglyphs, reported from most Canadian provinces and American states, from Alaska to Florida, but more frequently from those bordering the west coast of the continent (*sasquatch, oh-mah, tokémussi,* Bigfoot) (Sprague and Krantz 1977, Green 1978, Bord and Bord 1982). This form, generally thought to be related to the fossil gigantopithecines of Asia, *Gigantopithecus blacki* of China and *Gigantopithecus bilaspurensis* of India, has, in fact, been formally assigned to *Gigantopithecus blacki* by Grover S. Krantz (1986). Krantz has also proposed that, should the living form prove to be sufficiently different, *Gigantanthropus canadensis* would be an appropriate name.
- A chimpanzee-like ape, mainly nocturnal and capable of swimming,

reported from North American swamps and in temperate bottomland hollows. It is probably the same creature which is known as *bukwus* to the Tsimshian Indians, and after which they carved wooden masks. Despite its smaller size and its quite different habits, it has generally been confused with the former hairy giants. According to Loren Coleman, it could be a Nearctic representative of the dryopithecines, believed until now to have been restricted to the Old World from the Miocene to the Pleistocene (Coleman 1983).

- An anomalous bear, looking like a cross between a grizzly and a polar bear, from the Anderson River region in the Northwest Territories of Canada. Although well-known in Indian traditions, only a single specimen of this species—a skin and a skull—is preserved in the Smithsonian Institution collections: it has been described as Farlane's Bear (*Vetularctos inopinatus*) by C. H. Merriam (Goodwin 1946).
- Large felines with manes, and thus resembling male African lions, sporadically reported from various parts of North America, principally from the great Mississippi-Ohio-Missouri basin, more exceptionally from such distant places as Ontario, in Canada, and Georgia, California, and Washington, in the U.S.A. Developing a suggestion made by Mark A. Hall, Loren Coleman proposes that these large cats could well represent a relict population of a giant American lion of the Pleistocene, *Panthera leo atrox* which was alive only 10,000 years ago (Coleman 1983).
- Mammoths and/or mastodons having survived at least until the 18th century, particularly in Alaska.
- Gigantic flying birds of prey, with a wing span of between 10 and 16 feet, and thus larger than the Andean Condor. Generally dubbed "thunderbirds," they are suspected of attempts to abduct small children, and have been reported from innumerable parts of the southern half of the U.S.A. Loren Coleman suggests that they could be North American teratorns surviving from the Pleistocene. The most common of them, *Teratornis merriami,* had a wing-span of 10 to 12 feet, and *Teratornis incredibilis,* from Nevada and California, may have approached 17 feet. Some of the remains of these huge carnivorous birds are only 8,000 years old: it seems that they were hunted by early Amerindians (Coleman 1985).
- Outsized lizards, snakes, beavers, and even kangaroos—not to mention dinosaurs, unicorns, and flying men—reported from many parts of the U.S.A., but obviously based in most instances upon misidentifications, gross exaggeration, or plain hoaxes.

(7) In Central and South America (Neotropical Region)

- A middle-sized ground sloth (*ellengassen*) in Patagonia, or closer to the Equator in more northern tropical forests (Heuvelmans 1955, 1958a).
- Man-sized apes or monkeys, and/or hairy hominoids, in Guatemala

(*sisemite, liticayo*), Honduras (*sicimici*), Nicaragua and Panama, Colombia (*tranco, shiru*), Venezuela (*achi, vasitri, kanimas*), Guayana (*quato, di-di* or *dai-dai*), Bolivia and Brazil (*mapinguary, kubê-rop, pe de garrafa*), Peru (*tarma*), Paraguay (*carugua*), the State of Salta, Argentina (*ukumar*), and northern Chile (*tranco*) (Heuvelmans 1958a).

- Unknown bears, apparently differing from the spectacled bear of the Andes (*Tremarctos ornatus*), in the Muscarena Mountains of Colombia, and in the Campa Indian country of the Upper Amazon, in Peru (*milne*).
- The still controversial Andean wolf, a supposedly mountainous and long-haired counterpart of the lowland maned wolf (*Chrysocyon brachyurus*), described by Ingo Krumbiegel as *Dasycyon hagenbecki* on the strength of a skin and of a skull larger than the average maned wolf's cranium, both said to have come from the Andes (Krumbiegel 1949, 1953). The skin turned out to be almost identical to pelts of Canadian black wolves, which are simply a melanistic phase of the ordinary wolf (*Canis lupus*). However, the large skull, coming from a mountain region where the maned wolf, a true plains runner, is not known to dwell, remains to be explained.
- A puma-like cat, known for centuries to the Aztecs as *cuitlamiztli* and now as *onza* to modern Mexicans, who have always distinguished it from the local puma. Helmut Hemmer thinks that it may represent the native North American cheetah of the Upper Pleistocene (*Acinonyx* [*Miracinonyx*] *trumani*) surviving to the present in Mexico (Hemmer 1985).[3]
- A striped, saber-toothed cat of middle size in the mountain jungles of Colombia and Ecuador. It could be distantly related to true felids with saber teeth of the genus *Smilodon,* which were still alive in North America some 10,000 years ago. It is, however, much more likely that it belongs to the sabre-toothed marsupials of South America, the Thylacosmilidae, although these are thought to have been extinct for 4 million years.

(8) In Australasia (Australasian Region)

- An otter-like animal known as *waitoreke* (or *kaureke*?) to the Maori, on South Island, New Zealand, a country containing no aboriginal mammals, not even marsupials. It is not excluded that it could be a species of monotreme (an archaic oviparous mammal-like platypus) rather than a new species of otter (Heuvelmans 1955, 1958a).
- Gigantic monitor lizards, up to 30 feet in length, reported from tropical rivers and lakes of eastern Australia (see above, Freshwater Forms, *In Australasia [Australasian Region]*), but also reported in scrub-covered mountain ranges of New South Wales, around the Murray River, and even further south near Lake Alexandrina in Victoria.
- Unidentified species of large marsupials in Australian deserts sometimes described as outsized "rabbits" and known to the Aborigines of central Australia by such names as *kadimakara* and *gyedarra.* They could be either giant wombats of the supposedly extinct *Diprotodon* genus, or giant kangaroos of the fossil genus *Palorchestes,* but their descriptions could also be based upon ancient oral traditions referring to these creatures (Heuvelmans 1955, 1958a).
- A large tapir-like marsupial known as *gazeka* reported from the mountains of the Owen Stanley Range, in Papua New Guinea. From its outer appearance, it could well be related to the Australian *Diprotodon.*
- Medium-sized carnivorous marsupials, distinctly striped and thus referred to as pouched "tigers," reported mostly from all the western and southeastern states of Australia. They have been considered surviving representatives of the fossil genus *Thylacoleo,* or marsupial "lion," but are much more probably relicts of the supposedly extinct mainland form of the thylacine (*Thylacinus cynocephalus*), also called the marsupial "wolf" (Heuvelmans 1955, 1958a).[4]
- A large, dog-like animal on Mount Giluwe, in Papua New Guinea. As fossil thylacines have been found in this region, it is quite possible that some still survive.
- Man-sized hominoids, extremely hairy, in southeastern Australia (*yowie, yahoo*) (Joyner 1977, 1980). They could be remnants of the Kow Swamp Man (*Homo erectus*?), who still roamed the Murray River area some 10,000 years ago.[5]
- Small, hairy hominoids, said to walk on all fours and to live in trees, and thus thought to be ape-men, on Malaita, one of the Solomon Islands.
- A tall, hairy man, with long straight hair on his head and long nails (*mumulou*), in the mountains of Laudari, on Guadalcanal, another of the Solomon Islands.
- Small, dark men, with long straight hair on their heads, and sometimes slanderously said to be endowed with the Christian devil's attributes, such as a tail and goat's feet (*vui, wui*), on some of the New Hebrides islands.
- Largely mythicized pygmies with high conical heads (*vele*), on the Fiji Islands.

[3] Since this article was submitted for publication, a specimen of an Onza was shot by a Mexican rancher and made available to American investigators. Preliminary studies indicate that it is not closely related to the fossil species *Acinonyx trumani.* It may, however, be an intermediate form between *A. trumani* and modern puma, or a modern, long-legged kind of puma whose systematic position may be determined after biochemical and osteological studies (see *The ISC Newsletter,* Spring, 1985)—Editor.

[4] Since this article was submitted for publication, photos of the supposed mainland form of the thylacine, taken near Perth, Western Australia, have been published in *New Scientist* (Vol. 110: 44–47, 1986). Heuvelmans considers these new photos to represent "the greatest cryptozoological victory of the last two decennia"—Editor.

[5] See article by Colin P. Groves elsewhere in this issue—Editor.

- Feral cats of unusual size in southwestern Australia, thought by some to be transplanted American pumas (cougars).
- An unknown species of flightless bird on Hiva Oa, one of the Marquesas Islands (*koao*). It has been suggested that it is closely related to the New Zealand *takahe,* and thus a species of *Notornis* (Raynal 1980–81). What can be put forward more safely is that it looks indeed like a rail, but larger than the local *Porzana tabuensis,* thought to be locally extinct and surviving only on other islands of the same archipelago.
- A surviving species of the Moa family (Dinornithidae), the size of a turkey, known to some as *roa-roa,* which has occasionally been reported on South Island, New Zealand. It could possibly belong to the genus *Megalapteryx,* of which remains less than two hundred years old have been discovered (Heuvelmans 1955, 1958a, Mackal 1980).

ADDENDUM

No general bibliography of cryptozoology is yet available. Although very incomplete and listing only items published in the English language, by far the best source of references to many of the animal forms listed above is George M. Eberhart's *Monsters: A Guide to Information on Unaccounted-for Creatures, Including Bigfoot, Many Water Monsters, and Other Irregular Animals,* published by Garland, New York and London, 1983 (see review in *Cryptozoology,* Vol. 4: 88–90, 1985).

References Cited

Bandelier, Adolph F.
1910 *The Islands of Titicaca and Koati.* New York: The Hispanic Society of America.

Benwell, Gwen, and Arthur Waugh
1961 *Sea Enchantress: The Tale of the Mermaid and Her Kin.* London: Hutchinson.

Bord, Janet, and Colin Bord
1980 *Alien Animals.* London: Paul Elek-Granada.
1982 *The Bigfoot Casebook.* London: Granada.

Bottriell, Lena
1985 *The King Cheetah.* Manuscript awaiting publication.

Coleman, Loren
1983 *Mysterious America.* London-Boston: Faber & Faber.
1985 *Curious Encounters.* London-Boston: Faber & Faber.

Costello, Peter
1974 *In Search of Lake Monsters.* London: Garnstone; New York: Coward, McCann & Geoghegan.

Craig, Charles William Thurlow
1954 *Black Jack's Spurs—An Autobiography.* London: Hutchinson.

Dethier, Michel, and Ayako Dethier-Sakamoto
1986 *The tzuchinoko: Unidentified Reptile from Japan.* Manuscript awaiting publication.

Francis, Di
1983 *Cat Country: The Quest for the British Big Cat.* Newton Abbot, Devon: David & Charles.

Goodwin, George G.
1946 Inopinatus—The Unexpected. *Natural History* (November).

Green, John
1978 *Sasquatch: The Apes Among Us.* Saanichton, British Columbia: Hancock House.

Hemmer, Helmut
1985 The Onza as a Paleo-Cheetah: An Example of Possible Pleistocene Persistence. Paper presented at the Symposium "Cryptozoology: The Search for Unknown or Supposedly Extinct Animals," III International Congress of Systematic and Evolutionary Biology, July 7, 1985, University of Sussex, Brighton, England.

Heuvelmans, Bernard
1955 *Sur la Piste des Bêtes Ignorées.* Paris: Plon (Repr. Paris: François Beauval; Geneva: Famot, 1982).
1958a *On the Track of Unknown Animals.* London: Rupert Hart-Davis; New York: Hill & Wang.
1958b *Dans le Sillage des Monstres Marins: Le Kraken et le Poulpe Colossal.* Paris: Plon (Repr. Paris: François Beauval; Geneva: Famot, 1974).
1965a Les Dragons sont Toujours Parmi Nous. *Atlas* (October).
1965b *Le Grand Serpent-de-Mer: Le Problème Zoologique et sa Solution.* Paris: Plon (Revised edition, 1975).
1968 *In the Wake of the Sea-Serpents.* London: Rupert Hart-Davis; New York: Hill & Wang.
1969 Note Préliminaire sur un Spécimen Conservé dans la Glace d'une Forme Encore Inconnue d'Hominidé Vivant: *Homo pongoides* (sp. seu subsp. nov.). *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique,* Vol. 45(4): 1–24.
1978 *Les Derniers Dragons d'Afrique.* Paris: Plon.
1980 *Les Bêtes Humaines d'Afrique.* Paris: Plon.
1982 *Les Ours Insolites d'Afrique.* Manuscript awaiting publication.
1983a How Many Animal Species Remain to be Discovered? *Cryptozoology,* Vol. 2: 1–24.
1983b *Les Félins Encore Inconnus d'Afrique.* Manuscript awaiting publication.
1984 Cryptozoology is After Both Aquatic and Terrestrial Animals, not to Mention Misinformed Zoologists. *Cryptozoology,* Vol. 3: 115–18.

Heuvelmans, Bernard, and Boris F. Porchnev
1974 *L'Homme de Néanderthal est Toujours Vivant.* Paris: Plon.

Hill, W. C. Osman
1945 Nittaewo, an Unsolved Problem of Ceylon. *Loris,* Vol. 4: 251–62.

Hooijer, D. A.
1954 Crocodilian Remains From the Pleistocene of Celebes. *Copeia,* (4): 266.

Izzard, Ralph
1951 *The Hunt for the Buru.* London: Hodder & Stoughton.
1955 *The Abominable Snowman Adventure.* London: Hodder & Stoughton.

Joyner, Graham C.
1977 *The Hairy Man of South Eastern Australia.* Canberra: published by the author.
1980 *More Historical Evidence For the Yahoo, Hairy Man, Wild Man or Australian "Gorilla."* National Library of Australia, MS 3889.

Krantz, Grover S.
1986 A Species Named from Footprints. *Northwest Anthropological Research Notes,* Vol. 19(1): 93–99.

Krumbiegel, Ingo
1949 Der Andenwolf, ein Neuentdecktes Grosstier. *Umschau,* Vol. 49(9): 590–91.
1953 Der "Andenwolf" *Dasicyon hagenbecki* (Krumbiegel, 1949). *Säugetierkundliche Mitteilungen,* Vol. 1: 97–104.

Mackal, Roy P.
1980 *Searching for Hidden Animals: An Inquiry into Zoological Mysteries.* New York: Doubleday.
1986 *Mokele-Mbembe: Living Dinosaur*? Manuscript awaiting publication.
Mangiacopra, Gary S.
1975 *Octopus giganteus* Verrill: A New Species of Cephalopod. *Of Sea and Shore,* Vol. 6(1): 3–10.
1976 The Great Ones. *Of Sea and Shore,* Vol. 7(2): 51–52.
Ménatory, Gérard
1976 *La Bête du Gévaudan.* Mende: Imprimerie Chaptal et Fils.
Métraux, Alfred
1947 *The Native Tribes of Eastern Bolivia and Western Matto Grosso.* Washington, D.C.: Bureau of American Ethnology, Smithsonian Institution (Bulletin 134).
Monod, Theodore
1928 Sur la Présence au Sahara du *Lycaon pictus* (Temm.) (Résultats Scientifiques de la Mission Saharienne Augiéras-Draper). *Bulletin de la Société Zoologique de France,* Vol. 53: 262–64.
Mörzer Bruyns, Willem Frederick Jacob
1971 *Field Guide of Whales and Dolphins.* Amsterdam: Tor/C.A. Mees.
Neill, Wilfred T.
1956 The Possibility of an Undescribed Crocodile on New Britain. *Herpetologica,* Vol. 12: 174–76.
Pathé, Moritz
1940 *Die Suche nach dem Fabeltier.* Berlin: Deutscher Verlag.
Porshnev, Boris F.
1963 *Sovremennoe Sostoyanie Voprosa o Relikhtovykh Hominoidakh* [Present Status of the Problem of Relict Hominoids]. Moscow: Viniti.
Raynal, Michel
1980–81 "Koau," l'Oiseau Insaisissable des Iles Marquises. *Bulletin de la Société d'Etude des Sciences Naturelles de Béziers,* N.S., Vol. 8(49): 20–26.
1986 New Generic Name Proposed for the Giant Octopus of Florida. Manuscript awaiting publication.
Schmidt, Karl P.
1935 A New Crocodile From the Philippine Islands. *Publications of the Field Museum of Natural History, Chicago* (Zoological Series), Vol. 20(8): 67–70.
Scott, Sir Peter, and Robert Rines
1975 Naming the Loch Ness Monster. *Nature,* Vol. 258: 466–68.
Sprague, Roderick, and Grover S. Krantz (eds.)
1977 *The Scientist Looks at the Sasquatch.* Moscow, Idaho: University Press of Idaho.
Verrill, Addison E.
1897a A Gigantic Cephalopod on the Florida Coast. *American Journal of Science and the Arts,* Ser. 4, Vol. 3: 79.
1897b Additional Information Concerning the Giant Cephalopod of Florida. *American Journal of Science and the Arts,* Ser. 4, Vol. 3: 162–63.
1897c The Supposed Great Octopus of Florida: Certainly not a Cephalopod. *American Journal of Science and the Arts,* Ser. 4, Vol. 3: 355–56.
Wood, Forrest G., and Joseph G. Gennaro, Jr.
1971 An Octopus Trilogy. *Natural History* (March).
Yamamoto, Soseki
1973 *Nigero, Tzuchinoko!* [Scram, Tzuchinoko!]. Tokyo: Futami.
1985 *Yamazumi Mandara* [Scenes from Mountain Life]. Tokyo: Cross Roads.